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XII.—DR. LIVINGSTONE'S *Expedition to Lake Nyassa in 1861-63.*

Read, November 24, 1863.

1. *Extract from Private Letter from DR. LIVINGSTONE.*

“River Shiré, 7th Dec. 1861.

“WE have been up to Lake Nyassa and carried a boat past the cataracts to explore by. Went along the western shore; it is very deep; from 20 to 50 or 60 miles broad, and over 200 miles long (225). It was excessively stormy, and you must not despise us for failing to find out all about the Rovuma. We were on the west side, and could not cross in a little open boat at the period of the equinoctial gales: then we could get no food in a depopulated part of the country near the north end. Pirates live on detached rocks, and human skeletons and putrid bodies were lying everywhere. It was a fair dead lock for us, and we came back. Another lake, called Moelo, was reported by two Arabs we met on the lake. They came from a place called Katanga, which seems to be s.s.w. of Cazembe, and had come down to buy cloth at Nyassa.”

2. *Extract from Letter of REV. H. DE WINT BURRUP.*

The following is from the lamented Mr. Burrup to the Bishop of Cape Town, and is invested with melancholy interest from the fact of its being the last letter written by the reverend gentleman:—

“Magomero, 18th Dec. 1861. Lat. 15° s., long. 15° 35' E.

“WE are now about to start on an expedition to the mouth of a river (Reno) which rises in the Melanja Mountains and runs into the Shiré. This route makes the distance to the mouth of the Zambezi much shorter, and we do it at the suggestion of Dr. Livingstone; so it will be a great thing if we succeed. I wrote to you from Quillimane. Since then we have, as you will have perceived, had the extreme pleasure and satisfaction of first joining the *Pioneer*, and then the Bishop, and afterwards our whole party, at this our “new home,” about sixty miles by a hilly route from the Shiré. We started from Quillimane on the 12th October in two large boats ourselves, and our baggage in several canoes provided by our good friend Major Tito, who went with us as far as the Zambezi. Our route was up the Quillimane River, which is a fine river, and forms part of the Zambesi about seventy miles from Kongone during the wet season, but has a dry bed of about twelve miles during the rest of the year. We kept to the river Mutu (the name of the Quillimane River) for two days, and then turned up a

tributary of the Mutu named Quarquar. We kept to the Quarquar for six days more, and then landed at a point about twelve miles from the left bank of the Zambesi. We had our goods carried by about fifty men across these miles, and walked there ourselves under a burning sun. The name of this point on the Zambesi is Maruru, a good-sized village about two or three miles below Mazaro, a point on the same bank more generally known. On the 22nd we started in two canoes—one small, the other large—with crews that we had not much confidence in, as they were “scratch crews,” and not the tried men we had to the last expected in the shape of Major Tito’s slaves or “servants.” We were on the Zambesi four days. One night we slept in a very good house beautifully situated on the right bank, belonging to one of our friends at Quillimane; the other three nights we slept without covering. On the fifth night we slept on the left bank of the Shiré, about three miles up, which is throughout, as far as Shibisa, except in one or two parts, a more rapid and deeper river than the Zambesi, as far as we made the acquaintance of the latter. When we had been four days more in the Shiré we became anxious to have some more accurate information of the whereabouts of the *Pioneer*. We had been unable to gain any such precise information before we started, as nobody knew, and the accounts the natives gave varied so much (from three to ten days’ distance) that we decided that the small canoe should go forward to reconnoitre and return as soon as possible. Besides, our “scratch” crews gave us considerable trouble and anxiety, and we felt too much in their power, for they had *mutinied* early in the voyage and were beginning to show symptoms of restlessness. We determined that I should go, and, starting on the 1st November, I had the great satisfaction of hailing and boarding the *Pioneer* on the 8th. On the day after I reached the ship, by a remarkable coincidence, the Bishop Mackenzie arrived to see Livingstone before his starting. We started (the Bishop and myself) for Magomero, and arrived here in four days.

3. *Letter from MR. CHARLES LIVINGSTONE to SIR RODERICK I. MURCHISON.*

Read, November 24, 1862.

“River Shiré, E. Africa, 8th Jan., 1862.

“MY DEAR SIR RODERICK,

“A few days after our return from setting the Bishop over the Ma-Nganja, we started for Nyassa with a light four-oared gig and a score of blacks.

“We hired natives to carry the boat past the cataracts for a

cubit of calico a-piece per day, and then launched her on the broad and deep waters of the Upper Shiré. From this to Nyassa (60 miles) the current seldom exceeds a knot an hour, while from the cataracts to the Zambesi it is from 2 to 3 knots.

“Owing to marauding parties of Ajawa on the left bank, we kept, with our land party, on the west side of the lake, and saw upwards of 200 miles of its length, and would have seen it all, but unluckily food could not be obtained at any price; the country we entered had been swept by a war of extermination, and, instead of the thriving villages of other days, we found burned ruins, human skeletons, and a few starved survivors, who generally fled as soon as they perceived us.

“Near its southern end the lake is from 12 to 15 miles in breadth, but it widens as it goes north; the right bank making considerable westing, until it attains a width of 50 or 60 miles.

“The depth is indicated by the different colour of its waters. Near the land, and varying in width from a few yards to several miles according to the nature of the coast, is a belt of light green, and to this is joined in a well-defined line the blue or indigo of the ocean, which is the colour of the great body of Nyassa.

“Not far from where we turned back, and about a mile from shore, we could find no bottom with over a hundred fathoms of line out. The temperature of this mass of water, near the end of September, was 72°, and the air was always cooler on the beach than farther inland. We visited the lake in perhaps the stormiest season of the year (September and October), and were repeatedly detained by severe gales. At times, while sailing pleasantly over the blue water, with a gentle breeze and under a cloudless sky, suddenly, and without any warning, would be heard the sound of the pursuing gale, as it came roaring on, dragging myriads of white-crested waves in its excited wake. We got caught, one morning, in a heavy gale. As a sort of forlorn hope the anchor was let go in seven fathoms a mile from the land, with the sea breaking, even far out beyond us. The waves we dreaded most rushed upon us in squadrons of threes, with a few minutes of comparative quiet between the successive charges. Had one of those almost perpendicular-sided masses broken on our frail bark nothing could have saved us, but, to our heartfelt relief, as on they came with resistless force they broke before reaching us, or on one side, or behind. For six mortal hours we faced the fierce charges of those terrible trios, not knowing but some one of their waves might be carrying our fate on its hoary and uplifted head. A low, dark cloud came slowly from the mountains, and for hours hung directly over our heads. Our black crew became so sea-sick as to be unable to sit up, and the bow-oar had to be constantly at work to keep the boat's head to

the sea. The natives, with our land party, stood on the high cliffs, commiserating the unhappy fate of the poor white men, and exclaiming, as the boat was hid by the waves, "Ah! they're lost! they're dead!" In the afternoon the gale moderated, the anchor was soon up, the glad boat ran for the land, dashed through the boiling surf, and in a few seconds was safe on the beach.

"Lake Nyassa receives no great affluents from the west. The rivers we passed did not appear to be bringing in as much water as the Shiré was carrying out. Distinct line-marks on the rocks showed that for some time during the rains the water of the lake is three feet above the point to which it falls near the end of the dry season. The Shiré and evaporation may account for this fall; but whether these five streams with others, probably smaller, from the mountains in front and on the east side, when swollen by the rains, are able, in the course of a couple of months, to make up this loss, or whether the aid of the large river some natives spoke of as coming from the north-west is requisite, is still an unsolved problem. The Shiré was not in flood this season until the first week in January, and the rains commenced below the cataracts even in the beginning of November.

"The west side of Nyassa is a succession of bays of similar form, as though produced by a common cause, such as the prevalence of north-easterly winds; and each is separated from its neighbour by a rocky headland, with detached rocks extending some distance out to sea. In general these bays have a sandy beach or pebbly shore. The great south-westerly bay has a safe and commodious harbour. A good deal of the land adjacent to the lake is low, sometimes marshy, with numerous waterfowl and some elephants. Eight or ten miles back of the plain are ranges of high and well-wooded granite hills, running nearly parallel with the lake, and presenting in several places magnificent views of range towering behind range, until the distant blue mountains bound the prospect by rearing their lofty summits to the skies. Towards the north the plain becomes narrower, and near where we turned disappears altogether. The mountains then rise abruptly out of the lake, and form the north-east boundary of a high and extensive table-land, resembling the Batoka country, healthy, and well-suited for pasturage and agriculture.

"Never before, in Africa, have we seen anything like the dense population of Lake Nyassa, especially in the south. In some parts there seemed to be an unbroken chain of villages. On the beach of well-nigh every little sandy bay, black crowds were standing gazing at the novel spectacle of a boat under sail; and whenever we landed we were surrounded in a few seconds by hundreds of men, women, and children, who had hastened to stare at the "chiromba,"

or wild animals. To see the animals feed was the great attraction. Never did Zoological Society's lions draw a tithe of such multitudes. They crowded round us at meal times, a wilderness, an impenetrable thicket of negroes, looking on with the deepest apparent interest. The zeal they manifested in order to witness the whole procedure was more amusing than agreeable. The smell of black humanity, in a state of perspiration, is not pleasant while one is eating.

"They cultivate the soil pretty extensively, and grow large quantities of sweet potatoes, as well as rice, maize, native corn, &c.; but in the north manioc was the staple product, and with fish, kept till they attain a high flavour, constituted the principal food of the inhabitants. During a certain portion of the year, however, they have a curious harvest, which furnishes a singular sort of food. As we neared our northern limit, great clouds of what looked like the smoke rising from miles of burning grass, were observed driving in a north-easterly direction across the lake. One morning we sailed from five to ten minutes through one of the clouds, and discovered that it was not smoke, but midges (*ephemerides*). They filled the air to an immense height, and covered the water. All eyes had to be shut and every mouth closed; they fell against the face like fine drifted snow. Handfuls of their dead bodies lay in the boat after she emerged from the cloud. The people gather these minute insects and bake them into cakes, millions of midges in a cake. A midge cake, an inch thick and nearly as large as a Scotch ploughman's bonnet, was brought for sale. It was dark in colour, and tasted not unlike decayed red-herring. Plenty of excellent fish are found in the lake; some of the kinds were new to us. One, called sanjika, somewhat resembles trout, and runs up the rivers to spawn as salmon do at home. The largest were above two feet in length; splendid fish, the best we have ever eaten in Africa. They were running up the rivers in August and September, and numbers of fishermen were actively employed in catching them. Dams were constructed, full of sluices, in each of which was set the fatal trap fishbasket, over whose single entrance might have been written "All hope abandon ye who enter here." A short distance below, nets were stretched across from bank to bank, so that it seemed a marvel how even the most sagacious sanjika could get up without being taken, unless a free passage is left at night.

"In the lake the fish are caught chiefly with nets, but in deep water, some kinds are taken in fishbaskets, lowered to a great depth, and attached by a long line to a float, around which is often fastened a mass of grass or weeds, to serve, perhaps, as an alluring shade for the fish. Fleets of fine canoes are engaged in the lake fisheries; the men have long paddles, and stand while using

them. They sometimes venture out when there is a considerable sea on.

"Perhaps the first impression one receives of the men is that they are far from being industrious, in fact, are downright lazy. During the day, groups are seen lying asleep under the shady trees, and appearing to take life remarkably easy. But a little further acquaintance modifies first impressions, as it leads to the discovery that many of the sleepers work hard by night. In the afternoon they examine and mend their nets, place them in the canoes, and paddle off, frequently to distant islands, or other good fishing-grounds, and during a large portion of the night the poor fellows are toiling, passing much of the time in the water dragging their nets. Many men and boys are employed in gathering the buaze, preparing the fibre, and making it into long nets. When they come for the first time to gaze at suspicious-looking strangers, they may, with true African caution, leave their working materials at home. From the number of native cotton cloths worn in many villages at the south end of the lake, it is evident that a goodly number of busy hands must be constantly at work. An extensive manufacture of bark-cloth also is ever going on from one end of the lake probably to the other, and much toil and time are required before the bark becomes soft and fit to wear. A prodigious amount of this bark-cloth is worn, indicating the destruction of an immense number of trees every year.

"The lake people are by no means handsome. The women are frightfully ugly, and really make themselves hideous by the very means they adopt with the laudable view of rendering their persons beautiful and attractive. The pelele, or upper-lip ornament, is as fashionable as crinoline in other countries. Some are made of tin in the shape of a small dish, and they sometimes actually carry things in them. Others are of white quartz, and give the wearer the appearance of having an inch or two of one of Price's patent candles thrust through the lip and projecting beyond the point of the nose. A few are of a blood-red colour, and at a little distance the lady looks as if she had come off only second best in a recent domestic squabble. All are tattooed, the figures varying with the tribes. Some tattoo their faces after a fashion so execrable, that they seem to be covered all over with great ugly warts or pimples. The young boys and girls, however, are reasonably good-looking. In regard to their character they are pretty much like other people. There are decent ones among them, and a good many are, as they say in Scotland, "nae better than they suld be." If one of us happened to be at hand when a net was hauled, a fish was usually offered. Sailing one day past a number of men who had just dragged their net ashore, we were hailed, and asked to come and get a fish, and received a generous present. The

northerly chief, Marenga, was remarkably generous, giving us large presents of food and beer, both going and returning. Others also made us presents of food. But they are a bad lot at the different places where the slave parties cross. The slave-traders leave a blight and a curse wherever they go. The first question at the crossings invariably was, 'Do you wish to buy slaves?' Never did they make us a present of food: rarely would they even sell it. The slave-trade is going on just now at a fearful rate. An enterprising Arab built a dow on the lake not long since, and is running her regularly across crowded with slaves. He sailed the day before we reached his quarters with a full cargo. As his establishment is in the latitude of Ibo, there can be little doubt but that he is the agent who supplies the Portuguese there, and enables them to carry on the infamous traffic so extensively. When Capt. Stirling, of H.M.S. *Wasp*, called at Ibo last year, the town was full of slaves, hurriedly brought in from the outskirts to ship on board the disguised cruiser, which they had mistaken for a large slaver expected on the coast about that time. The chagrin of the Portuguese Governor on discovering that it was an English man-of-war was so great, that he entirely forgot to treat the Captain with common courtesy, and did not even ask him to sit down.

"In some things the people of Nyassa are as far advanced as the most highly civilised communities. They have expert thieves among them. On our way up we had a disagreeable visit from some of this light-fingered class. They called one morning when two of us were down with fever, between the rather early hours of three and five, and, notwithstanding a formidable array of revolvers and rifles, quietly relieved us of a considerable amount, while we all slept ingloriously throughout the whole performance. We awoke, as honest men do, at the usual hour, and the fact of our loss soon burst upon us. 'My bag's *gone!*' cried one of the victims, 'and all my clothes! and my *boots*, too!' 'Both of mine are off!' responded another. 'And so is mine!' chimed in a third: 'and the bag of *beads!* and the *rice!*' 'Is the *cloth* gone too?' 'No; it's all safe: I used it for a pillow.'

"'There is honour among thieves,' it is said. These Nyassa scoundrels left on the beach our aneroid barometer and a new pair of boots, thinking, perhaps, that they might be of use to us though of none to them. It was rather humiliating to be so completely done for by a few black thieves.

"A few of the best fisheries seem to be the private property of individuals. We found shelter from a storm one morning in a spacious lagoon which communicated with the lake by a narrow passage. Across this strait stakes were driven in, leaving spaces for the fish-baskets. About a score of men were busily engaged in taking out the fish. We tried to purchase some, but they refused

to sell. 'The fish were not theirs, they belonged to a man in a neighbouring village: they would send for the owner.' In a short time the gentleman made his appearance, and sold us some. He did not appear to be the chief, but one who owned, or had farmed out, this very productive fishery.

"Some of their burying-grounds are wonderfully well arranged and cared for. One of these was on the southern shore of the fine harbour in the great bay. A neat and wide path was made on its east and south sides. A grand, old, sacred fig-tree stood on the north-east corner, and its wide-spreading branches threw their kindly shade over this last resting-place of the dead. Other splendid trees grew around the hallowed spot. The graves were raised exactly as they are at home, but lay north and south, the heads being at the north. The graves of the sexes were distinguished by the implements which the buried dead had been accustomed to use in their respective occupations, while amidst the joys of life. The heavy stick used in pounding corn, one end in the grave and the other thrust through the basket in which the meal is sifted, showed that a woman slept beneath the sod; a piece of fishing-net and a broken paddle were over the grave of a fisherman, and all the graves had numerous broken pots arranged around them. At the head of some a banana-tree had been carefully planted. The people of the neighbouring village were friendly, and readily brought us food for sale.

"CHARLES LIVINGSTONE."

4. *Paper prepared for the Royal Geographical Society, by*
DR. LIVINGSTONE.

Read, November 24, 1862.

"January, 1862.

"UNDER the impression that the Fellows of the Royal Geographical Society appreciate attempts made by our countrymen for the benefit of their fellow-men, I may mention, before proceeding to detail the operations of our own mission on Lake Nyassa, that we had the pleasure of showing the Oxford and Cambridge missionaries the way from Dakanamoio Island, a few miles below Murchison's Cataracts, to the highlands of Mananja, south of Mount Zomba. We left the ship in their company on 15th July, 1861, and in two marches reached the edge of the plateau, some 3000 feet, on which geographers will agree that, with common sense, the missionaries are more likely to enjoy good health, while pursuing their benevolent enterprise, than they would be on any of the adjacent lowlands. Here we were mortified to find that advantage had been taken of the route followed by Dr. Kirk from

the Shiré to Tette, to institute an extensive system of slave-hunting in the very country to which the Bishop and his associates had come. The first party met had eighty-four captives. As it was possible that they might have been bought, they were asked how they came to be bound and led in that way towards Tette. It turned out that a marauding party of a tribe named Ajawa or Ajauwa had been invited by the Tette people to attack village after village of Mananja, kill the men, and sell the women and children to them. During the course of the inquiry the adventurers escaped into the forest, and the best thing that could be done was to present these and the captives of three other Portuguese parties to the Bishop, to try what he could make of them. Altogether they numbered about one hundred and forty souls, chiefly women and children.

"The spot selected for a temporary residence is, to the eye, about 15 miles south of the middle of Mount Zomba. It is on the banks of a stream about 10 yards wide, called Magomero, and will serve until more extended acquaintance with the country enables them to choose a better. The Mananja have so little organisation that the destruction of one village after another produced no union for mutual defence. Their paramount chief, who lives on the Shiré, did nothing but help those, who were carrying off his people, across that river. The nation seemed noways surprised at his supineness. The only effort made was to send for a chief who is believed to ensure victory by his sorceries; and the bravery of the Mananja, of which we had received such highly coloured accounts from the Portuguese, showed itself in universal flight before the Ajawa. It was plain that if these marauders were not induced to desist, the fine fertile country would soon be inhabited by the missionaries alone. With a view to stop the effusion of more blood, we set off to hold a parley with the Ajawa, and found them at the base of Mount Zomba. Unfortunately, we came upon them in the very moment of victory, for they had just burnt three villages; and a long line of captives, laden with plunder, were moving along to the temporary residence of the plunderers. Here the Bishop offered up a solemn and fervent prayer, and, with the accents of his prayer, we could hear the sad wail for the dead, and shrill screams of joy over the victory. A panic seized the captives, or carriers, as we first appeared in sight; all dashed down their loads and fled. But the Ajawa soon demanded if we came peaceably; our assurances in the affirmative were neutralized by some Mananja followers calling out 'Our Chibisa' (the great sorcerer) 'has come;' and most unfortunately, the effect of this foolish call, in depriving us of our English name, was not realized until afterwards. Elated too with continued success, they probably thought that a small party of about twenty

would prove an easy prey, and they began to shoot us with their poisoned arrows. Our slowly retiring from their village was considered only evidence of fear, and they crowded round to within fifty yards, and, but for recourse to our fire-arms in self-defence, would soon have cut us all off. So little did we anticipate this, the English name having hitherto served to ensure respect, that we had barely ammunition to serve our purpose. The Mananja followers alone suffered from the arrows and guns of the Ajawa. After this small band of sixty or eighty robbers were driven off, other bodies of Ajawa have since been employed by the people of Tette, and it seems evident that it is intended to root out the Mission, without the authorities being in any way compromised. We have some reason to believe that the guns were handled by Portuguese slaves.

"Returning to the ship at Dakanamoio Island, we began the carriage of a boat past Murchison Cataracts on the 6th of August, and in three weeks placed her on the Upper Shiré, in lat. $15^{\circ} 20'$ s. The cataracts begin in $15^{\circ} 55'$ s., as we have 35' or 40' of land portage. The western bank was followed, that being smoother than the eastern. In the worst parts a few small trees cut down opened a path for our shouting assistants, who kindly considered the boat as a certificate of peaceful intentions, at least to them. Launched on the Upper Shiré we were virtually on the lake, for there is but little difference of level. It has little current, and is everywhere of good depth. Before entering the lake proper in lat. $14^{\circ} 25'$, we pass through the lakelet Pamabombe, 10 or 12 miles long, and 5 or 6 broad. It is nearly surrounded by a broad belt of papyrus, so densely planted that we could scarcely find an opening to the shore. The plant is 8 or 10 feet high, air is excluded where it grows, and so much sulphuretted hydrogen gas evolved, the white paint on the bottom of the boat was blackened. Myriads of mosquitoes showed, as I think they always do, the presence of malaria, and warned us off to the more healthy shores of Lake Nyassa. We sailed into it on the 2nd of September, and felt refreshed by the greater coolness of the air in contact with this large body of water.

"The depth was the first point of interest, and while skirting the western shore, about a mile out, we found, as the Upper Shiré was from 9 to 15 feet, the lake deepened from 9 to 15 fathoms; then as we rounded the grand mountainous promontory, Cape Maclear, we could feel no bottom with our lead-line of 35 fathoms or 210 feet; as we wended our way along the western shore, which is just a succession of bays, we found that where the bottom was sandy, at a mile from the land, the depth varied from 6 to 14 fathoms. In a rocky bay about lat. $11^{\circ} 40'$ s. we had bottom at 100 fathoms; but at a mile out of it we found none with a fishing-line

of 116 fathoms or 696 feet, but this was unsatisfactory as the line broke in coming up. According to our present knowledge a ship could find anchorage only near the shore. Reverting to the southern end, we found the tongue of the lake, from which the Shiré flows, to be about 30 miles long and 10 or 12 broad. Rounding Cape Maclear westwards, we enter another arm which stretches southwards some 18 miles, and is from 6 to 12 miles broad. These arms of the lake give the southern end a forked appearance, and with the help of a little imagination it may be likened to the boot-shape of Italy. It is narrowest about the ankle, 18 or 20 miles. From this it widens to the north, and in the upper third or fourth it is 50 or 60 miles broad. The length is over 200 or 225 miles. But we were there at a very unfavourable period of the year; the 'smokes' filled the air with an impenetrable haze, and the equinoctial gales rendered it impossible for us to cross to the eastern side. As the sun rose behind mountains, sketches and bearings of these at different latitudes enabled us to secure approximate measurements of its width. There are several crossing places, as at Tsenga and Molamba, and about the beginning of the upper third they get over by taking advantage of the island Chizumara; but further north they go round the end instead, though that takes several days. Like all narrow seas, surrounded as this is by mountains, tremendous swells get up very suddenly. On one of these occasions we were caught a mile from the shore and could neither advance nor recede. The men all became so sea-sick that they could scarcely be made to keep the boat's head to the sea. Terrific rollers, with perpendicular sides and crests broken into spray, came across the lake; but fortunately broke either before they reached or passed us. We were riding at anchor in seven fathoms. The boat behaved admirably during the six weary hours we were detained there, but one roller breaking on her would have ended our exploration. After this we trusted implicitly to the opinions of our seaman, John Neil, and often sat cowering for days together, waiting for the surf to go down. We had to beach the boat every night to save her from being swamped at anchor, and, did we not believe that the frequent storms were peculiar to that period of the year, would call Nyassa 'the Lake of Storms.' No current could be detected; the sounding line showed no deflection from the perpendicular. The boat swung at her anchor wherever the slightest breath of wind blew her; and patches of water-loving grass, which the natives anchor over fishing creels to attract the fish by the shade, invariably showed the direction of the wind alone. The natives are aware, however, that a long-continued gale raises the water a few inches on the shore to which it blows, and then of

course it must return to its level. We tried hard to find a current, for we hope to navigate the lake ourselves, and an 'unknown current' is the plank by which many lubbers who lose their ships are saved. The height of the water varies between the wet and dry seasons about 3 feet. Five rivers flow into it from the west; they are from 15 to 30 yards wide, and some require canoes in crossing, but unitedly they do not account for the evaporation and the Shiré's perennial flow. A large river may come in farther north, but great was my disappointment in not finding one that would lessen the longitude towards the country of the Makololo. Many torrents—stagnant when we passed—discharge much water in the rainy season. The water is fresh, but somewhat earthy-tasted and hard; this may not be the case when the lake is full. The water never becomes warm as in the Shiré and Zambezi. We were there during the hottest period of the year, and we could bathe in its delightful water whenever we chose, for the alligators, though tremendous fellows, are well fed on fish and seldom kill men. They, however, capture people in the Zambezi, chiefly when the water is discoloured and they cannot see their natural prey. Fish abound in Nyassa, and the vast population on its shores all engage in catching them with trawling nets. As the sun declines, groups of natives in hundreds sit and gossip under the shady trees near the water's edge, waiting till the surf goes down. Then, launching their canoes, they commence trawling, and often continue their labours most of the night. Toiling in a state of nudity, they too suffer from fever, but their skins are much more torpid in function than ours. Our beards grow as much in a week as their wool does in a month. Hence conformity to the customs of the natives, which people sometimes enjoin, would require a modification of our highly excitable skins.

"The numbers of people we saw on the lake exceeded all I have observed elsewhere. Probably the rains will draw off many to their agriculture. To the south-west we have the Maravi, then as we go north we come among the Marimba, then the Matumboka or Atimboka, Makusa, and Mañkamvira. They are essentially one people, with one language, and much the same appearance. All, like the Manganja, are marked with cicatrices in straight lines, which, crossing each other, form lozenge or triangular-shaped devices. But the Matumboka raise the skin into heart-like lumps, and file their teeth to points. There is a slight difference in the dialects spoken, but all understand each other, and the Manganja language serves everywhere. The name Marimba might be applied to them all. We never heard the name Wanyassa except among Arabs. The prefix Wa belongs to the north. The Abisa, or Awisa, or Babisa, call themselves Wabisa. There are Marimba

on the east coast, and Anguru. We heard Ajawa firing cannon on that side, near the southern end: they are probably marauders engaged in slave-hunting.

"The people are all clothed with the inner bark of a species of acacia, steeped and beaten till it is soft. The fair sex are—to use the mildest term—*very* plain. The lips, large enough if let alone, are pierced and distended with quartz-stones till they are hideous. The men are better looking than the women. We were quite as great curiosities to them as the hippopotamus was to the highly civilized who live on the banks of the Thames. They were upon the whole civil. At one village only were they impudent, but they were a little 'elevated' by beer. Twice they went the length of lifting up the edge of our sail, which we used as a tent, as boys do the curtains of travelling menageries at home; but they did not cross the line made on the sand when we were at meals. They spoke of us, indeed, as 'Chirombo' (wild beasts), but they had no idea that they were understood. No fines were levied or dues demanded.

"When about half-way up the lake, an Arab *dhow*, lately built to carry slaves across, fled from us to the eastern shore. Expert thieves, possibly from the east coast, crept up to our sleeping places about four o'clock in the morning, and made off with what clothing they could lay their hands on. No food was to be had except what we could shoot. Fortunately elephants and hippopotami were tame. At 11° 40' we entered the borders of a tribe of Zulus, called Mazitu or Mazite, who came originally from the south, opposite Sofala or Inhambane. Here the shores of the lake were strewn with skeletons and putrid bodies of the slain. Our land party dreaded meeting the inflictors of the terrible vengeance of which the evidences everywhere met the eye, without a European in their company. So I left the boat, and a mistake separated us from it for three days. The country is mountainous, and the spurs of the mountains come sheer down to the lake. While toiling along up and down steep ravines, our most strenuous efforts could not make 5 miles a day in a straight line. The boat had gone on 20 miles, and a storm prevented its return. We met seven Mazite, who seemed as much afraid of me as the men were of them. I went to them unarmed. They wished me to sit in the sun while they sat in the shade, and rattled their shields (a proceeding that inspires terror among the natives) when I refused and came and sat down beside them. They refused to take me to the boat or to their chief, thought that my note-book was a pistol, and on parting sped away up the hills like frightened deer. The country had been well peopled, but now skeletons lay in every hut among broken pots and other utensils. No food could be found, and, but for four goats we had with us, we should have starved. On the

second day the land party gave in, but, taking two of the best, I pushed on after the boat, and on the morning of the fourth day met it coming back. The last latitude taken was lat. $11^{\circ} 44'$ s.; the boat had gone about $24'$ north of that. The nothing made on shore was less than that, but from elevations of over a thousand feet, and from the boat, at least 20 miles more were seen. So we may venture to assert that the lake extends into the southern borders of the tenth degree of south latitude. Our provisions were expended; the land was desolate, except a few pirates on detached rocks off the coast; our land party had turned; and without it an accident to the boat would have proved fatal to us all. This was the first time I had turned without accomplishing what I had set out to do; but turn we must, though in sight of the large mountain masses looming in the distance, in which the lake probably ends. We pulled back in the boat in one day what, on land, with the most heartbreaking toil, I had accomplished in three; and a good fellow, called Marengo, laded us with all the different kinds of food he had, and regretted that we could not spend a whole day with him drinking beer.

"The information collected about the Rovuma affords a good illustration of the instability of the foundation on which much speculative geography stands. One intelligent native, with apparently no motive for deceiving us, asserted most positively that our boat could sail out of the lake into the river; another, that it must be carried a few yards; while a third would maintain that the land carriage was at least 50 miles. It would at that season of the year have been foolhardiness to cross the lake to gain certainty for ourselves. In three out of four storms our little boat could not have lived. We met two Arabs, who had come down from Katanga, in the far interior, to buy calico with ivory at the lake. One had lived fourteen, the other sixteen, years in the interior. They drew Nyassa discharging towards the south, and Tanganyika towards the north, which last we know from Major Burton to be nonsense. They reported another lake, called Moelo, and say that the Loapola or Luapula flows into it. I wonder who will be set down as the discoverer of that after the English have been there.

"The fish in the lake are very abundant. This may be the reason why the alligators are so tame. They are, as already remarked, always most destructive to human life when the Zambezi is discoloured and they cannot procure their usual diet of fish. One fish, shaped like trout, ascends the rivers to spawn. It is very good to eat, having somewhat the flavour of herring. Clouds, exactly like columns of smoke, floated over the lake, and led us to conjecture that they arose from the burning of grass on the opposite shore; but passing through one of these clouds, we found that it consisted of insects no larger than our smallest gnats. They are

called Kungo, and are collected and boiled into cakes, which reminded me by their flavour of roasted locusts, but the taste is fishy. This is probably the smallest winged insect used as food by man. Locusts are here unknown.

"The only trade on the lake is in slaves. The people do not attempt to kill elephants or hippopotami with their bows and arrows, and both animals are remarkably tame. Slaves were often offered to us for sale. The cotton grown on the upper part of the lake is of a remarkably fine quality. We could only state that we should soon come in a larger vessel and purchase their cotton; and, judging from the quantity we have purchased on a small portion of the Shiré, and that not in crop time, the produce from Nyassa, with its remarkably extended coast-line, will in the course of a year or two be very considerable. The actions, however, of the Portuguese slave-hunters on our footsteps have a more depressing effect upon our spirits than all the physical obstacles we have to encounter, or than the fever itself.

"(Signed) DAVID LIVINGSTONE.

"P.S.—On returning to the Upper Shiré, we had a good view of the country east of it, and I suspect that we have been misled as to the length of the Lake Shirwa or Tamanda, for the country near the Lake Nyassa is all mountainous. A level patch, however, exists from about $14^{\circ} 40'$ to $14^{\circ} 50'$ s., and it is probable that here the hippopotami cross from the river to the lake. The native information was correct enough I believe, only they looked on the Upper Shiré as a part of Lake Nyinyesi or Nyassa, while we took the lake proper as its real beginning. We never had time to examine the Lake Shirwa, but think that 20 or 30 miles may have to be cut off its length in the maps.

"When we reached the uppermost cataract, we slung our boat to a branch of a fine shady tree, about 10 feet from the ground. The elephants which abound there may disturb it, but nothing else will. We then walked past the cataracts, having completed our trip of 600 miles, going and coming, in three months. Our next work is carrying a steamer, which we expect in pieces, by a road made by ourselves past the cataracts.

"(Signed) D. L."

It was shortly after this that the disasters of the Mission may be said to commence. We cannot do better than present the following summary of the situation from the columns of the 'Cape Argus' of May 22nd, 1862, which supplies the gap between January 8th and 27th April, when the bereavement that then overtook Dr.

Livingstone, in the loss of his wife, which might have made a less lofty spirit succumb, may be said to have put the coping-stone to the catastrophe of this heroic band. It will be remembered that tidings reached England that an unexpected famine had ravaged the Shiré, to the privations consequent upon which, and the consequent inability of the natives to furnish provisions, much of the lamentable results are to be attributed :—

“At Chupanga, about ten miles from Mozzaro, the *Pioneer*, it was found, could proceed no further. There was, therefore, no alternative but to prosecute the remainder of the journey in the two boats, which were provisioned for ten days ; and as it was supposed that their destination might be reached in four, the prospect did not look very formidable. When we say that, instead of four, twelve days elapsed ere the boats made the junction of the Rua River, 60 miles from their journey's end, and that during this period the ladies were in open boats, exposed to all the extremes of a fearfully unwholesome atmosphere, to the thousand insect-plagues which literally render existence almost unbearable, and that the crews were, man after man, struck down by insidious disease, it will be readily understood how wretched was their situation, and how heavily those in charge felt their responsibility.

“At this part of the river it was that the Bishop and Mr. Burrup were expected to be in readiness to receive them. But the natives would not give any information. No one appeared, and Captain Wilson, knowing that provisions would be needed by the *Gorgon*, sent one of the two boats back down the river on a foraging expedition, while he pushed up with the other to leave the ladies at Chibisa. The crew of the former suffered terribly from fever on their way ; and, indeed, from all accounts were most miraculously preserved, especially as provisions and medicine were all used up ; and of stimulants there were none.

“Captain Wilson in his boat went on safely enough to Chibisa, the nearest spot to the mission station : there he left the ladies in charge of the doctor, and tried to get overland with Dr. Kirk, of the *Pioneer*, and four men ; but when within two days' march of the place he was attacked by fever which had nearly proved fatal. Dr. Kirk even had looked out for a place in which to bury him. Dr. Kirk, too, was struck down, but most providentially a messenger, who had been dispatched forward, returned with some of the mission party. This may be said to have saved them from death.

“Then it was that Captain Wilson and Dr. Kirk first learned the disastrous news which has shocked and saddened so many. The natives at Rua had known of it, but had kept silence, fearing lest they should be suspected of having caused the deaths of the Bishop and Mr. Burrup by witchcraft. One night, indeed, the boat in

which were Miss Mackenzie and Mrs. Burrup had anchored within 100 yards of the Bishop's grave.

"On the 14th of February it was first known at the station by the arrival there of one of the Makololo, who reported the Bishop's death, and intimated the approach of the Rev. Mr. Burrup, who was carried on some rough branches of trees by two Makololo, but so shrunk and ill as to be scarcely recognisable. From Mr. Burrup it was gathered, that, after leaving the station on January 3, the Bishop and he had slept five nights on the road; that at Chibisi they obtained a small canoe (the only one) with some men, who paddled them down to the island (Malo). Unfortunately they were upset, got wet through, and, worst of all, lost a case in the water, containing clothes, powder, and medicine. At first they were well received by Chief Chikangi. The Bishop had an attack of low fever, which soon gained ground on a constitution, which, though naturally strong, had been weakened by exposure and suffering. It soon became evident that he was sinking fast, as his speech was wandering, and he was perfectly helpless. The same afternoon, on the other side of the river, in a secluded spot under a large tree, the Rev. Mr. Burrup was reverently reading the Burial Service in the dim twilight over his lost leader, with no one near to share his affliction save the Makololo who had dug the grave.

"On the next day, Mr. Burrup prepared to return to the station. Nothing but death was before him. Leaving a letter for Dr. Livingstone, he journeyed on to Chibisa. Thence to the station he was carried, being too weak to walk. From the 14th February, the day of his arrival, hopes of his recovery were entertained for a short time; but ere long diarrhœa added to his weakness, and the fever was aggravated by the want of proper nourishing food. On the morning of the 22nd he breathed his last; and on Sunday, the following day, he was buried near the station. Neither Miss Mackenzie, Mrs. Burrup, nor the Rev. Mr. Hawkins ever reached the station: they returned to the Cape in H.M.'s ship *Gorgon*." *

* With regard to the prospects of the Mission, which has just received so severe a check, we quote the opinion of the naturalist attached to the Livingstone expedition:—

"Although so short a time has elapsed in which to speak of the working of the Mission, the results as they are now patent to all, should be taken for good or ill. No one can enter that wide country, at the present time, who has seen it since or before the arrival of the Mission, without seeing at once the change that has been effected. The objects of the Mission are known and appreciated; a light has been thrown on the vileness of slave-traffic, and chiefs now abhor it who, but a few months since, were solely occupied in furnishing its victims. The principle of civilizing before evangelizing is being truly carried out; and the example of the working Christians has already leavened a large multitude, and prepared the way for effective religious instruction. By their example and exertions not only friends but foes have been led to compare their conditions, and to seek to better

[We quote here, as the sole decided information furnished at this period, the following extract from a letter of the Rev. Mr. Stewart (no date), who had apparently returned from an unsuccessful

them; and it is my confident belief that, the influence of the Mission continuing as hitherto, both Ajawa and Wa-Nganga will unite to turn their faces against slavery, and to combine their interests for mutual welfare."

We [*'Cape Argus'*] also take advantage of an interesting and carefully drawn up narrative in the *'Cape Monthly Magazine,'* to extract a few observations bearing upon these points:—

"A mission, then, has been planted firmly in a country which, as far we can see, promises amply to repay the labour spent upon it, and under a climate which will allow Europeans to live without danger. But it is clear that there exists an urgent necessity for sending fresh supplies, both of men and stores, with the utmost possible despatch.

"We dare not leave those who are already there to depend for any length of time on their own unaided resources. Their number is too small—too small even for the ordinary work which a party of missionaries has to carry out.

"Besides, in a climate and country peculiarly trying to European constitutions, health and strength can be secured only by such provision of food and clothing as might safely be dispensed with in a healthier region. What are luxuries elsewhere are necessities here—wine, spirits, flour, are essential. Nor is it likely that the Mission can be long left without fresh stores of this character. The first necessity, then, is to establish regular and trustworthy means of communication between the upper part of the Shire and the Kongone mouth, in order that the supplies needed may be forwarded from time to time, and that those who may hereafter be sent up to the Mission may reach their destination safely and easily.

"Nothing but the prospect of entire failure could justify the abandonment of such an undertaking at the present. Materially, the prospects of the settlement are promising enough. There is no longer anything like a widely-spread hostility to be apprehended among the natives. The soil is fertile, and the abundance of rare and valuable wood, such as the *lignum vitæ* and ebony, will in time supply materials for a healthy trade; while if cotton can be grown in any considerable quantity in the lower grounds, the prosperity of the whole region might be indefinitely increased. In the Upper Shire there is a teeming population, which will furnish labour in abundance. All that is needed is to supply such incentives to exertion as an easy communication with more highly civilised lands would be pretty sure to bring with it.

"All the members of the Zambezi Mission agree that never was there such a field for a mission, or a country where they could expect to exercise a wider or a more useful influence. The natives are naturally intelligent, certainly disposed to be friendly, and keenly alive to the attractions of trade. They need only help and patience, and they will raise themselves.

"The slave-trade can be met successfully only at its outset. Its supplies must be cut off at their source. It is to no purpose that the efforts of the Portuguese have stopped the export of slaves along their own coast, and that the sea north of the Mozambique Channel has been cleared by our cruisers. Arab dhows can still steal up the coast, and when they have got a human cargo at Zanzibar or the mouth of the Rovuma, they have little difficulty in finding a market where to dispose of it. But the station of the Magomero commands the great slave-trade track which skirts the southern boundaries of Lake Nyassa. If this can be effectually stopped, if caravans are no longer able to drive their gangs of captives along their old paths, if bands of kidnappers are no longer able to foray with impunity, there will be some reason to hope that they will either find some more lawful occupation for themselves or at all events leave others to pursue theirs in peace. And the opening of the river will do very much to facilitate this result. For instance, the unhappy natives who are now employed to carry down ivory from the interior are sold into slavery at the end of their journey in order to avoid the expense of the return home. But if a time should ever come when regular communication, by canoes or other means, connects South Central Africa with

attempt to cross the Lake, and written before intelligence had been received of the sad fate of the more advanced members of the Mission. A later letter, dated 15th March, mentions his having only then received the intelligence already mentioned.]

“What of Rovuma? Whatever you please. From the positive point-blank assertion that we could sail out of the lake into the river to the equally positive statement that the boat must be lifted a few yards, or 50 miles over a bank. The lake rises and falls from wet to dry season about 3 feet; has no current; five rivers flow into it on the west side, of from 15 to 30 yards in width. There must be a large river at the end. For miles there are more rivers on the east than west side; for we have not wherewith to account for the flow of Shiré. A strong wind continuing, sometimes raises the water a few inches; colour, green or deep sea-blue. Plenty of fish and hippopotami; alligators few and civil. We could bathe where we liked—a great blessing, quite unknown on the Shiré and Zambesi. Water fresh, but a little earthy-tasted and hard: it is probably different when full. The population on its shores is prodigious: I never saw so many people anywhere else in Africa. They are clothed with the inner bark of a tree; they fish with large nets, creels, torches, hooks, and poison. A fish, shaped like the salmon, goes up the streams to spawn. It has the little knob for digging, like that fish; tastes like a herring, and is very good. Clouds floated over the sea, just like smoke. We sometimes, from them, conjectured the distance of the opposite shore; but we got into one, and found it to be composed of insects exactly like our smallest gnats: they are collected, and boiled into cakes, which smell exactly like locusts, and taste fishy. Elephants and hippopotami shockingly tame. We killed one, and the herd was standing a mile off two days afterwards; but the Arabs will mend this: met two that had come down from Katanga to buy calico with ivory at Nyassa. Katanga seems to be s.s.w. of Cazembe. They offered malachite for sale; and told us that Ben Habib had taken back the Makololo, roused, we suppose, by our consul at Zanzibar.”

5. *Extract of Letter from REV. MR. STEWART.*

“Zambesi River, 6th March, 1862.

“We had a longer stay at Natal than we anticipated; and after that, we had unexpectedly to make acquaintance with Mozambique

the trading cities of its coast, it will hardly be found the cheapest plan to expend a fresh detachment of labourers on each separate journey. They may be employed in their own land more profitably as well as more humanely; they will find their account in felling wood or planting cotton, or in any other branch of honest industry, which will flourish when all the ivory is exhausted and the elephants from which it came are extinct.”

as well. This was rather out of our course ; but circumstances rendered it unavoidable. For myself, I was not sorry to be obliged to see the Portuguese capital of Eastern Africa. It hardly came up to my expectations, though these were not pitched very high. The city is built on an island, at the northern end of which stands the fort, San Sebastian. The inner harbour lies between the islands and the mainland. You go ashore at a very good wharf or pier, the upper part of which is of wood ; and this timber frame-work again rests on some ten or twelve stone supports, which seem strongly built. Facing the wharf, and at a short distance from it, is probably the best house in the place, the palace of the governor-general. Like all the others, it is flat-roofed, and, like most of those having any pretensions, the walls are whitewashed with pink colour, if such a contradiction in terms may be allowed.

“Before landing, you have heard of Domingo’s store as the chief place of business, and thither you make your way, with the double object of supplying your wants, and having a central point from which you may proceed to examine the curious city of Mozambique. Hotels, or inns of any sort, are unknown. After wandering through narrow and crooked streets, formed of dull and lifeless-looking dwellings, you ask for the main street. ‘This is it,’ is probably the answer you get ; and, ‘Domingo’s store?’ ‘You are just in front of it,’ though you know it not. Having received this information, and reflected for a moment upon it, your conceptions of what Mozambique City ought to be, or may be, suddenly assume the sober hue of reality ; for that, indeed, is now before you. A walk through other parts of the city only leads to further acquaintance with what you have already seen. There are the same dull-looking flat-roofed houses built of stone, with thick walls and washed pink, white, and brown. What one misses at first entrance into the place is the presence of white men. Their numbers are quite disproportionate to those of the black population in the streets. Of course, if there are few white men, there are still fewer white women. Perhaps it would not be correct to say there are none ; but certainly there are almost none to be seen.

“The absence of anything like the business activity and life of even a small English colonial town is very striking. Nor is the comparative want of any amount of business in the city itself made up for by activity in the harbour. There were few ships. In the inner harbour there were but one or two, and a Portuguese war-steamer ; in the outer, H.M.S. *Gorgon* and our own brig. This was so far explained by the existence of the American war, as it is said American ships came frequently into the port.

“Near the sea, and for the distance of about 20 or 30 miles from the mouth, the banks are thickly covered with trees, chiefly mangroves, dwarf palms, screw pines, and a species of mallow,

with, in certain places, many stout climbers binding all together, and forming with their twining branches an impenetrable leafy mass. There is something very similar to be seen on the coast-line of Natal, only with a somewhat different vegetation.

"Farther up the trees disappear ; the flat level nature of the banks becomes more apparent ; and tall grass 6 to 12 feet high, occasional palmyra and cocoa-nut palm, standing solitary and sentinel-like by the river's brink. The tops of the huts of small native villages at some short distance back from the river, with scattered trees here and there, make up the picture.

"At Shupanga, where we are now, the country improves very much. The left, or southern bank, is densely wooded ; the land rises considerably. But for certain tropical features of a very unmistakeable kind, such as cocoa-nuts, palms, and baobabs, one might, in an imaginative mood, suppose you were looking on a bit of rich English scenery. The existence of a good stone house with its red tiles, no doubt adds to the influence of the delusion.

"The natives are few in number, and are, I should suppose, mostly slaves, especially on the northern bank. Of course their moral and religious condition is no better than their social one. The condition of the heathen world is certainly one of the most touching and baffling of all the problems this life presents us with."

About this period it appears that several applications were made for assistance against the Ajawa, which, however, were resolutely declined. A constant succession of claims, nevertheless, ultimately decided Mr. Procter, who on Bishop Mackenzie's death had been left in charge of the mission, to visit Urbona, the chief of the Mingazi, in order to get his sanction to reside in his district, the country being hilly, particularly fine, and pleasant. Mr. Procter and Mr. Dickenson undertook this journey, and started off early on the morning of March 20 ; and on reaching their destination obtained permission to have a tour of exploration through the district governed by Urbano, in order to select a site which would not only be healthy, but also be appropriate for the carrying out of their mission. Accordingly, they proceeded towards a fine long spur of the western extremity of the Chiradzu Mountain, as the place looked promising. After crossing a valley which lay between them and the ridge which they wanted to reach, and ascending the ridge a considerable distance, Mr. Procter found the country favourable to their purpose. The want, however, of a stream, compelled them to abandon the thought of residing there. After making further explorations, the party returned to their mission station, where they continued until April 15, a period of nearly a month, educating the natives, &c., without being molested. On that day,

however, news reached them of a series of incursions of the Ajawa, which rendered it imperative to change their station. This was accordingly done, about 70 men being engaged to assist in carrying their luggage. It was decided that they should proceed to Chibisa's village, on the Shiré, for the present. The journey, which occupied ten days, was accomplished safely, almost all the people—in number about 60—freed through the exertions of the mission party, accompanied them. Mr. Procter's communication concludes: "We are situated on a bank about 100 feet high, and for nearly a month have not felt any ill effects worse than those which came upon us in our former place. We hope we shall be able to remain here for a few months, and go on with our previous work, acquiring the language and teaching our own people."

The following is an extract from a letter from Mr. Waller, which comes next in order of date:—

"Chibisa's, 29th May, 1862.

"MY DEAR LORD BISHOP That we must again move on to some higher hills than this cliff is certain. It is Dr. Livingstone's positive advice, and it is already showing itself wise; we shall, I imagine, go on to the hill, somewhere on the left bank of the Shiré, near the falls: we shall then be more come-at-able. There has been a sad drought on the hills just round here. The Mapira (or Guinea corn) crop has been burnt up in consequence, and provisions are very scarce. Of course a rush has been made to the low-lying ground by the river, and I passed by miles of the most luxurious growing crops on the banks, which should be available in another month. My journey was a comparatively quick one, four days under the month. I saw the last section of the *Nyassa* being made ready to complete her, and the two ships may come up here at any moment; but I have great fears the river is too low to allow of it for some time to come. Poor Doctor! his brave heart has been tried to the utmost; never have I pitied man more than when his crowning sorrow* came to him whilst I was with them at Shipango. I know where all his hope lies, and the main-spring of his life and every action. How I do wish we English had the trade *entrée* to this river; the cotton that could be raised, I am the more convinced, would make the Shiré a main artery for driving a new influence into that black land of horrors that is around us everywhere. The stores we have must last to the end of the year.

"HORACE WALLER.

"P.S. I have not spoken of the little steamer: all are very anxious for it, and my experience of the journey, and the mode of transit

* Mrs. Livingstone, Dr. Livingstone's devoted companion, who had not long rejoined him, expired on the 27th April, 1862.

by canoes, makes me long for it the more. I did not mention that she ought to be fitted with strong hauling apparatus, blocks and tackles, and very strong capstans."

Just two days after the date of the last-quoted letter, we find a letter from Dr. Livingstone, the chief extracts from which we quote, appending thereto the Doctor's more detailed letters of 21st and 25th June, 1862, dated from Shupanga, whither in the interim he had returned from the Kongone:—

"Kongone, 2nd June, 1862.

"THE missionaries have fled down to the lowlands at Chibisa's: a great mistake. Waller, from whom we have heard the unwelcome intelligence, says he will vote for going back to the hills. Their *prestige* is now, of course, nowhere. This very detention down in the lowlands has been a terrible trial for all. We never had so much fever: we cure it quickly, but back it comes to the same individual again and again. We are all ready for launching the *Lady Nyassa*. Mr. Rae put her together in a fortnight with very few hands; but I had to move him away, ill of dysentery, to breathe the sea air. He is much better, but thin.

"D. L."

* * * *

"Shupanga, 21st June, 1862.

"I HAVE been trying to get the geographical position as correctly as possible of the spot where the remains of my much-loved one repose, by observing re-appearances of the satellites of Jupiter, and taking time by stars; but I fear with less success than I desire.

"We never had so much fever and dysentery as we have suffered by our detention in the lowlands. Dr. Kirk and Mr. C. Livingstone were sent up to Tetté to bring away our baggage thence. I had their sole medical charge on board, while the Rev. Mr. Stewart attended those left here; and I had, on the average, a fresh case of fever every day during a month.

"I was slow to believe that the neglected state of the engines prevented our getting up the Shiré in February; but we spent three weeks in getting up to Shupanga, though we have performed the same distance since with heavier loads in three days, or rather in two and a half days' steaming.

"Thornton is here. He has been to Kilima-Njaro, and thinks the information given by the missionaries, Krapf and Rebman, quite reliable. He saw the snow and felt the cold at about 8000 feet altitude and fifteen miles distance. The mountain is an old volcano about 21,000 feet high; but he will himself give his experiences."

"Shupanga, 25th June, 1862.

"THAT" (alluding to the mail just dispatched) "will give you the rather untoward news that the missionaries had fled to Chibisa, from the Ajawas. I am sorry for it; but, except that it lands them too near the Shiré swamps, it is, perhaps, the best thing they could do under the circumstances."

The preceding letter is interesting, as showing the position of the party when the winter season, such as it is, of an intertropical climate was setting in.

About December it was apparent that yet other victims had to suffer from the malaria of these regions. The Rev. H. C. Scudamore expired on the morning of 1st January, 1863. The following letter from the Rev. L. J. Procter gives an account of the state of affairs prior to Mr. Scudamore's death:—

"Signor Vianna's, on the Zambesi, 27th Dec. 1862.

"THE wretched state of the country on the hills and along the Shiré has compelled us again to have recourse to the Portuguese for a further supply of the food merely absolutely necessary, and I have come down with one of our native people to purchase rice for ourselves and mapira for our dependents. On reaching this place, the residence of Signor Vianna, on the 16th, I fell in with Dr. Livingstone, who had just returned from the Rovuma, which he had been exploring in boats, and where he tells me he had been partially successful in his search for a river-route to Lake Nyassa; but that he and his party had been in considerable danger from a number of river-pirates who had attacked them with guns: they had come upon rapids in the river, but the country around was favourable for land-carriage. All were well on the *Pioneer*, and they were going on to Shupanga, whence they would start up the Shiré for Chibisa's, as soon as the rise in the water should be sufficient. As regards ourselves, he told me that there was a great quantity of stores for us at Quillimane, which had been brought from the Cape by H.M.S. *Rapid*, in November, and which he had assisted in landing with considerable trouble and difficulty—another kindness for which we are indebted to the good Doctor.

"As I came down the Shiré I found the people in considerable affright on account of Mariana in the higher parts of the surrounding country, where an immense number of fugitives had also gathered together: the lower parts were ravaged and almost deserted, burnt villages being the signs of what had been going on, and a number of guns fired only three or four miles distant from an island on which we one night slept, the tokens of what is still going on. Mariana has about 2000 men, armed with guns for the most part,

in his service, and is leagued now with the Portuguese at Quillimane for slaving purposes.

"We have had the greatest difficulty in getting even a very small quantity of seed-corn from the natives. A short time before my departure we sent Charles Thomas, one of the Cape men, up the hills south of our last station to try if he could buy any; but he had very small success. He went towards the Milanje, and got very near the very place where I and Scudamore were attacked: the people there pleaded famine, not it appears from real want, against which there was abundant external evidence, but because they were evidently unwilling to encourage any traffic or even communication with the English. Charles gave a miserable account of the country in the neighbourhood of our late district, and the route to it from the Shiré: it is at least decimated on account of the famine; he passed through many villages where all the inhabitants, he was told, had died of hunger. Mbami's village itself, with which I presume you are by this time familiar as the first stopping-place on our route to Magomero, is destitute of people; all have perished except the chief himself and a few of his family. He paid us a visit a short time ago and was then looking himself in a half-starved condition, very different from the stout and hearty personage who greeted us there on our first journey up. With regard to Satchi, and the country between it and Magomero, I think I have informed you in my previous letter.

"I took a journey with some of our own people down the Shiré a short time before I left Mikarango, to try if anything was to be bought in the way of seed or corn, but I could get nothing: there were large crops coming on, but at present the complaint is famine. The people on the right bank, our side of the river, were also in great fear of another Portuguese rebel, of whom I made mention in one of my last letters as staying with Chibisa."

The following postscript (dated 27th February) to a letter dated 10th February, 1863, from the Rev. J. L. Procter, already mentioned, narrates the state of matters up to date:—

Having alluded to the departure of Mr. Rowley, one of the Mission to Tetté for food (the expected supplies not having arrived), Mr. Procter says,—“This is our last resource; animal food is failing us, and even before Rowley can return we shall be reduced to simply vegetable diet. Of course, therefore, much depends upon this difficult and trying journey to Tetté, which will occupy at least a month. If food can be had, all will be well: if not, our case is desperate, and but one resource will be left for us. I have accordingly written thus to Mr. Woodcock, our hon. secretary:—‘Under the circumstances I feel it my duty to state that, if animal

food cannot be insured, and if help in men and some additional provisions do not arrive from home, we shall be compelled to quit our present abode for the sea-coast, whence we shall try to make our way to either Johanna, Natal, or the Cape; and, not to leave any indefiniteness in this sad statement, I will add that, if we receive no addition to our numbers, or see no better hopes for the future before the 15th June next, we shall then proceed to make our way down the river in the best way we can. Grievous as this resolve is, I fear we cannot do otherwise. The whole country is in a state of utter ruin and destitution, and the drought still continues. Our surgeon, Mr. Dickinson, assures us that we have only this alternative unless we choose to stay and die for want of proper sustenance.' " *

XIII.—*Diary of MR. JOHN M'DOUALL STUART'S (Gold Medallist R.G.S.) Explorations from Adelaide across the Continent of Australia, 1861-2.*

Read, March 9, 1863.

[THE party — consisting of Mr. M'Douall Stuart, leader; Mr. J. W. Waterhouse, naturalist to the expedition; Mr. William Kekwick, second in command; Mr. F. W. Thring, third officer; Mr. W. P. Auld, assistant; Mr. Stephen King, Mr. John Billiatt, Mr. James Frew, Mr. Heath Nash, Mr. John M'Gorery, shoeing smith—left Adelaide 5th December, 1861; and, after suffering

* A letter of Mr. Procter's, dated February 24, says:—

"I do not think anybody in England can possibly realise the present condition of the land, never one of abundance, but now utterly impoverished, and scarcely recognisable as the one through which we passed now nearly two years ago. With the exception of two or three, who have asked leave to build huts near us, all the inhabitants of the neighbouring villages have either died, or left these parts for others where there is more likelihood of raising crops: here all is war and famine; and a drought, which has mainly contributed to produce the latter, if not indeed the former (for the Makololo, the Ajawa, and the Portuguese rebels down the river, all make food the chief object in their depredations), seems likely to be continued through the ensuing year. Although this is the rainy season, one bright sunny day succeeds another with scarcely a cloud visible, and already I fear the second crops (those of mapira or Guinea grain) will prove a failure. Corpses are still constantly seen floating down the river, and prove too sadly what the state of the country continues to be above us. Of course amidst all this desolation it is impossible to get native food of any kind; even amongst the Ajawa themselves, the famine has done a great work of devastation, so that we scarcely know where to look or where to go for aid. Of farinaceous food we have an ample store, not only in the supplies sent out to us, but in the rice and mapira which I forwarded from Vianna; this, however, even in the tropics, is not sufficient to support European constitutions—and though we can do with much less animal food than if we were in England, still we must have some, or our strength will soon fall away to nothing. I am told that, with the exception of cattle, nothing of any kind is to be bought at Tette, and that it, as well as Senna, are totally dependent upon Quillimane for all corn-food; the natives have died of hunger there in almost as large numbers as they have done here."